

REMARKS

Claims 10, 18 - 21, 23 - 26, 28 - 33, 35 - 36, and 38 - 49 are pending. Claims 10, 23, 26, and 33 have been amended. Claims 1 - 9, 11 - 17, 22, 27, 34, and 37 have been cancelled. Claims 38 - 49 have been added. No new matter has been introduced. Reexamination and reconsideration of the application are respectfully requested.

In the June 19, 2003 Office Action, the Examiner rejected claims 1 - 6, 10 - 12, 16 - 21, 24 - 29, and 33 - 37 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,268,817 to Miyagawa et al. (the Miyagawa reference). The Examiner rejected claims 7, 8, 13 - 15, 23, and 30 - 32 under 35 U.S.C. § 103(a) as being unpatentable over the Miyagawa reference and further in view of U.S. Patent No. 6,122,152 to Goto et al. (the Goto reference). The Examiner also noted that the oath or declaration was defective. These rejections are respectfully traversed.

A corrected oath / declaration for Kenji Shimano is enclosed herewith.

The present invention is directed to a computer that can be utilized as both a laptop and a tablet computer. The computer may include a base unit and a display unit. An A hinge may be rotated to allow the display unit to be placed in the laptop configuration, and the B hinge may be swiveled and the A hinge rotated to allow the portable computer to be placed in the tablet configuration. A hinging assembly may include a B hinge oriented to rotate a shaft about a vertical axis. The shaft may be coupled to a support plate. The support plate may also rotate about a vertical axis. The hinging assembly may also include an A hinge that couples the support plate to the display unit such that the display unit may rotate about an axis of rotation perpendicular

to the shaft.

The B hinge may have a ball bearing having an inner race coupled to the shaft and an outer race coupled to the base unit. A number of rolling elements may be packed between the inner race and the outer race to permit rotation of the inner race relative to the outer race. The B hinge may be locked to prevent swiveling. In an embodiment of the invention, a locking pin is coupled to components of the hinging assembly (i.e., the B hinge, the shaft, the support place, or the display unit) on one end. A second end of the locking pin may be inserted into a cavity of the outer race of the B hinge or a portion of the base unit.

In an alternative embodiment, the locking pin may be pivotally attached at one end to a lever running through the base unit and the other end of the locking pin may be inserted into a cavity of a component that rotates about the vertical axis relative to the base unit (for example, the inner race of the B hinge, the shaft, etc. The lever may be actuated to pivot the locking pin so as to release the free end of the locking pin from the cavity. Actuating the lever may cause the lever to be pushed in toward the inner race of the B hinge and may be accomplished via a push button. The component into which the locking pin is inserted may have a first cavity corresponding to a laptop configuration and a second cavity corresponding in which the display unit has been swiveled. The locking pin may be released from the first cavity to begin swiveling of the display unit and may be inserted into the second cavity when swiveling is complete.

Claim 10, as amended, recites:

A portable computer configurable in a tablet configuration, a laptop configuration, and a closed configuration, said portable computer comprising:

- a display unit having a display device and a back surface;

- a base unit having a primary input device and a bottom surface;

- a latching assembly to maintain said portable computer in one of said closed configuration and said tablet configuration; and

- a hinging assembly coupling said display unit to said base unit, said hinging assembly having a first hinge with a first axis of rotation and a second hinge with a second axis of rotation, wherein

- one of said first hinge and said second hinge is rotated to reconfigure said portable computer between said closed configuration and said laptop configuration,

- said first hinge and said second hinge are rotated to reconfigure said portable computer between said closed configuration and said tablet configuration, and

- said second hinge is oriented to rotate a shaft about a vertical axis, and includes a ball bearing having an inner race coupled to the shaft and an outer race coupled to the base unit, and the shaft is coupled to a support plate.*

The Miyagawa reference discloses a computer that can be utilized in a laptop and a tablet configuration. A portable computer comprises a main body case 93 of an upper surface of which a keyboard 91 is arranged, an upper cover 95, a first hinge

mechanism 99 for pivotally coupling a junction upper cover 97 on the upper surface of the main body case 93, and a second hinge mechanism 107 for rotatably coupling the upper cover 95 which stores integrated display input device 105 to the junction upper cover 97. (*Col. 13, line 41 - 55*).

The first hinge mechanism 99 can pivot the junction upper cover 97 and the upper cover 95 through about 140 degrees. The second hinge mechanism 107 allows the upper cover 95 to rotate in a horizontal direction on the junction upper cover 97. A rotational shaft receiving member 111 is fixed to the junction upper cover 97. A groove having the same diameter as that of the rotational shaft 113, for holding the bottom portion of the rotation shaft is formed in the upper surface portion of the rotational shaft receiving member 111. The rotational shaft 113 serves as a main shaft of the upper cover 95 and the junction upper cover 97. A bearing 115 is arranged on the bottom portion of the rotational shaft 113 to facilitate rotation.

A recess for receiving upper cover fixing plates to be fixed to the upper cover is formed in the distal end of the upper portion of the rotational shaft 113. A ring-line rotational shaft support member 119 for minimizing a lateral gap of the rotational shaft 113 to stabilize the shaft is fitted on the rotational shaft 113. A rotational cover 123 for storing the rotational shaft 113, the bearing 115, and the rotational shaft support member 119 on the rotational shaft receiving member 111 is fixed to the rotational shaft receiving member 111 by small screws 121 to support the entire rotating mechanism. The rotational cover 123 storing the rotational shaft 113 and the rotational shaft receiving member 111 are fixed to the junction upper cover 97 by the small screws 121. After the upper cover is fitted on the rotational shaft 113 projecting from the rotational

cover 123, the upper cover fixing plates 117 are fitted in the recess of the rotational shaft 113 from the two sides, and are fixed on the upper cover 95 by small screws 122.

In this manner, the junction upper cover 97 and the upper cover 95 are pivotally coupled to each other. (*Col. 14, lines 12 - 46*).

A rotation brake mechanism regulates a pivotal range of the second hinge mechanism 107. The rotation rail 125 is formed on the upper surface portion of the junction upper cover 97. The rotation rail 125 is formed at a position corresponding to half a circuit having a rotational shaft 113 at the center and defines a pivotal range of the upper cover 95. Recess/projection portions 127 for gently stopping the rotation of the upper cover 95 and holding rotational positions are formed at the end portions of the rotational rail 125. (*Col. 14, lines 54 - 63*).

A rotation lock mechanism is arranged in the display/input unit 51 and the support unit 47 located at positions perpendicular to the rotational shaft of the second hinge mechanism 53, but may be arranged in the display/input 51 and the support unit 47 located at positions parallel to the rotational shaft of the second hinge mechanism 53. The lock pins 57 and the lock release buttons 61 are arranged on the support unit and the holes 59 are formed in the display/input unit 51, and vice versa. (*Col. 18, lines 39 - 50*).

The Miyagawa reference does not disclose, teach, or suggest the portable computer of independent claim 10, as amended. Unlike the computer of independent claim 10, as amended, the Miyagawa reference does not concern a portable computer including a display unit, a base unit, a hinging assembly, a latching assembly, the

oriented to rotate a shaft about a vertical axis, and includes a ball bearing having an inner race coupled to the shaft and an outer race coupled to the base unit, and the shaft is coupled to a support plate.

Instead, the Miyagawa reference discloses a ball bearing arranged on the bottom portion of the rotation shaft to facilitate rotation as the ball bearing and the bottom portion of the shaft are held by a groove of a rotational shaft receiving member 111. (Col. 14, lines 11 - 21). This is not the same as a portable computer including a display unit, a base unit, a hinging assembly, a latching assembly, the hinging assembly having a first hinge and a second hinge, wherein said *second hinge includes a ball bearing having an inner race coupled to the shaft and the outer race coupled to the base unit*, the benefit of which is stability of the portable computer. The Miyagawa reference is not found to disclose that the outer race of its ball bearing is coupled to the base unit. Accordingly, applicant respectfully submits that independent claim 10, as amended, distinguishes over the Miyagawa reference.

Dependent claims 18 - 21, 23 - 26, 28 - 32 depend, indirectly or directly on independent claim 10, as amended. Accordingly, applicant respectfully submits that claims 18 - 21, 23 - 26, and 28 - 32 distinguish over the Miyagawa reference for the reasons discussed above in regards to independent claim 10, as amended.

Independent claim 38 recites:

A portable computer configurable in a tablet configuration, a laptop configuration, and a closed configuration, said portable computer comprising:

a base unit having a primary input device and a bottom surface;

a latching assembly to maintain said portable computer in one of said closed configuration and said tablet configuration;

a hinging assembly coupling said display unit to said base unit, said hinging assembly having a first hinge with a first axis of rotation and a second hinge with a second axis of rotation; and

a locking pin, coupled to the hinging assembly and the base unit, to prevent swiveling of the display unit when the portable computer is not in the laptop model, wherein

one of said first hinge and said second hinge is rotated to reconfigure said portable computer between said closed configuration and said laptop configuration, and

said first hinge and said second hinge are rotated to reconfigure said portable computer between said closed configuration and said tablet configuration.

The Miyagawa reference does not disclose, teach, or suggest the computer of independent claim 38 as amended. Unlike the portable computer of independent claim 38, the Miyagawa reference does not concern a portable computer including a base unit, a display unit, a latching assembly, a hinging assembly including a first hinge and a second hinge, and *a locking pin coupled to the hinging assembly and the base unit, to prevent swiveling of the display unit when the portable computer is not in the laptop model.*

range of rotation of the upper cover 95 formed on the upper surface portion of the junction upper cover which includes a rotation rail 125 and recess/projection portions 127 for gently stopping the rotation of the upper cover. Other embodiments of the Miyagawa reference disclose a locking pin between a display unit and a display support unit. (*Col. 14, line 47 - col. 15, line 12; col. 18, lines 39 - 50*). This is not the same as a portable computer including a base unit, a display unit, a hinging assembly, and a *locking pin coupled to the hinging assembly and the base unit*. The Miyagawa reference's braking mechanism is between the junction upper cover, i.e., hinging assembly, and the upper cover (not the base unit and the hinging assembly). The Miyagawa reference's locking pin is between a display unit and a display support unit, which is not the same as the base unit and the hinging assembly. Accordingly, applicant respectfully submits that independent claim 38 distinguishes over the Miyagawa reference.

Claims 39 - 45 depend, directly or indirectly, from independent claim 38. Accordingly, applicant respectfully submits that claims 39 - 45 distinguish over the Miyagawa reference for the reasons set forth above with respect to independent claim 38.

Independent claim 46 recites:

A portable computer configurable in a table configuration, a laptop configuration, and a closed configuration, said portable computer comprising:

a base unit having a primary input device and a bottom surface;

a display unit having a display device and a back surface, said

display unit movably attached to said base unit such that said primary input device is between said back surface of said display unit and said bottom surface of said base unit when said portable computer is in said tablet configuration and such that said primary input device and display device are between said back surface of said display unit and said bottom surface of said base unit when said portable computer is in said closed configuration; and

a latching assembly capable of being selectively changed from an open state to a closed state, said latching assembly having a first portion coupled to said display unit, a second portion coupled to said base unit, a latching arm mounted on one of the first portion or the second portion and a latching block mounted on the other one of the first portion or the second portion,

wherein said latching assembly is changed to said closed state to maintain said portable computer in one of said tablet configuration and said closed configuration

The Goto reference is directed to an information processing device. To maintain a closed condition of the cover 4 with respect to the body 2, the cover has a hook mechanism 20. The hook mechanism 20 constitutes an engaging mechanism of this device. The body 2 and the cover 4 are in the form of a substantially rectangular plate and the hook mechanism 20 is located at an end portion of the cover 4 opposite to the connecting member 6, i.e., hinge. (Col. 4, line 64 - col. 5, line 8). The hook mechanism

rotatable relative thereto in the range of about 90 degrees. The slider 26 has a boxlike frame 30 open at its upper and lower ends, a shorter sliding shaft 32 projecting outward from one longitudinal end of the frame, and a longer sliding shaft 34 projecting outward from the other longitudinal end of the frame 30. A slide button is provided on one surface of the frame. The hook member 28 has a first pawl portion 38 as a first engaging member and a second pawl portion 40 as a second engaging member substantially perpendicular to each other. (*Col. 5, line 61 - col. 6, line 10*).

The lower housing of the cover 4 is formed with two slider supports 52 and 54 projecting inside the cover. The sliding shafts 32 and 34 of the slider are slidably supported to the slider supports 52 and 54. Accordingly, the slider 26 is slidable within the cover 4. The upper housing 14 of the cover 4 has an opening 14A for allowing projection of the second pawl portion 40 from the upper surface 4A of the cover 4. The lower housing 16 of the cover 5 has an opening 15A for allowing projection of the first pawl portion 38 from the lower surface of the cover 4. The upper housing 8 of the body 2 has a hole 8A for releasably engaging the first pawl portion 38 of the hook member 28. the lower housing 8 of the body 2 has a hole 10A for releasably engaging the second pawl portion of the hook member. (*Col. 6, lines 29 - 55*).

The Examiner utilizes the Goto reference to teach the latching assembly as claimed. (*June 19, 2003 Office Action, pages 3 - 4*). The Goto reference does not disclose, teach, or suggest the portable computer of claim 46. Unlike the portable computer of claim 46, the Goto reference does not concern a portable computer configurable in a table configuration, a laptop configuration, and a closed configuration,

capable of being selectively changed from an open state to a closed state, said latching assembly having a first portion coupled to said display unit, a second portion coupled to said base unit, *a latching arm mounted on the first portion and a latching block mounted on the second portion.*

Instead, the Goto reference discloses a hook mechanism 20 including a slider 26 and a hook member 28, wherein the slider 26 has a boxlike frame and is located with the cover 4. The lower housing 16 of the cover 4 is formed with two slider supports 52 and 54 projecting inside the cover. The slider is slidable within the cover 4. (*Fig. 5A, col. 6, lines 30 - 55*). This is not the same as a portable computer including a display unit, a base unit, and a latching assembly, *a latching assembly having a first portion coupled to said display unit, a second portion coupled to said base unit, a latching arm mounted on one of the first portion and a latching block mounted on the second portion.*

The Goto hook member is mounted within the body, i.e., base, and not mounted on a first portion and the Goto slider, i.e., latching block, is mounted within the display unit, not mounted on the second portion. Accordingly, applicant respectfully submits that claim 46 distinguishes over the Goto reference.

The Examiner cited the Miyagawa reference in combination with the Goto reference to teach a portable computer having a base unit, a display unit and a latching assembly. (*Office Action, page 3*). The Examiner noted that the Miyagawa reference lacked a clear teaching of the latching assembly as claimed. Assuming, *arguendo*, that the Miyagawa reference does teach a portable computer having a base unit, a display unit, and a latching assembly to couple the base unit to the display unit, the Miyagawa

unit, and a latching assembly having a first portion coupled to said display unit, a second portion coupled to said base unit, *a latching arm mounted on one of the first portion and a latching block mounted on the second portion*. The Miyagawa reference discloses a lock mechanism 26 or a latch mechanism 81 to couple the base unit to the display unit, but does not disclose a latching arm or latching block. Accordingly, applicants respectfully submit that independent claim 46 distinguishes over the Miyagawa reference, alone or in combination with the Goto reference.

Independent claims 33 and 48 recite similar limitations to independent claim 46. Accordingly, applicant respectfully submits that independent claims 33 and 48 distinguish over the Goto reference and the Miyagawa reference, alone or in combination, for the same reasons as discussed above in regards to independent claim 46.

Claims 35 - 36, 47, and 49 depend directly on independent claims 33, 46, and 48, respectively. Applicant respectfully submits that claims 35 - 36, 47, and 49 distinguish over the Goto reference and the Miyagawa reference, alone or in combination, for the same reasons as discussed above in regards to independent claim 46.

Dependent claim 47 further distinguishes over the Goto reference. Unlike the portable computer of claim 47, the GoTo reference does not concern a portable computer including a display unit, a base unit, and a latching assembly, a latching assembly having a first portion coupled to said display unit, a second portion coupled to said base unit, a latching arm mounted on the first portion, wherein the latching arm

cavity and a second cavity, *the first projection and the second projection are parallel in respect to each other*, the first projection is inserted into a first cavity when the portable computer is in the open state and the first projection is inserted into a second cavity when the portable computer is in the closed state.

Instead, the Goto reference discloses a first pawl position, i.e., first projection, and a second pawl position, i.e., second projection, that are substantially perpendicular to each other. (*Col. 6, lines 3 - 6*). This is not the same as a portable computer including a base unit, a display unit, a latching assembly including a latching arm, wherein the latching arm includes a first projection and a second projection, the first projection and the second projection are parallel with respect to each other. Accordingly, applicants respectfully submit that claim 47 further distinguishes over the Goto reference.

Dependent claim 47 further distinguishes over the Miyagawa reference, alone or in combination with the Goto reference. The Miyagawa reference is not found to disclose a portable computer including a base unit, a display unit, a latching assembly including a latching arm, wherein the latching arm includes a first projection and a second projection, the first projection and the second projection are parallel with respect to each other. The Miyagawa reference is not found to teach a latching assembly that includes a first projection and a second projection. Accordingly, applicant respectfully submits that claim 48, further distinguishes over the Miyagawa reference, alone or in combination with the Goto reference.

Dependent claim 49 recites similar limitations as dependent claim 47. Accordingly, applicant respectfully submits that dependent claim 49 further distinguishes


the Goto reference, alone or in combination with the Miyagawa reference, for the same reasons as discussed above in regards to dependent claim 47.

Applicant believes that the claims are in condition for allowance, and a favorable action is respectfully requested. If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call either of the undersigned attorneys at the Los Angeles telephone number (213) 488-7100 to discuss the steps necessary for placing the application in condition for allowance should the Examiner believe that such a telephone conference would advance prosecution of the application.


Respectfully submitted,

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